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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,892	04/17/2001	Charles Hopson	60,130-726	6550

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EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/836,892	Applicant(s) HOPSON ET AL.	
	Examiner Julio C. Gonzalez	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/24/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 8-15 contain limitations that are not supported in the specifications thus are constituted as new matter being introduced to such claims.

More specifically, claim 8 discloses that the “wires bundles are spaced apart from each adjacent wire bundle establishing a non-contact relationship between the wire bundles”. There is no description of such limitation in the specification to support such limitation. Also, claim 9 discloses that the wire bundles are connected “solely” to each other by the circuit cap. Again, there is no description in the specification to support such limitation. Claim 11 describes that the “wire bundles have a greater length than the rotor casing”. There is no description in the

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specification to support such limitation. In claims 10 and 12, it is disclosed that the “wire bundles are molded into the rotor casing forming a single molded unit and that the bundles are encased within a groove formed on the rotor casing”. There is no description in the specification to support such limitations.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al in view of Umeki.

Graham et al discloses an armature for an electric motor having a cylindrical rotor casing 44, a plurality of spaced conducting bundles 18 and a circuit cap 50 electrically connecting the bundles 18 to each other (see figures 3, 6, 8, 7).

However, Graham et al does not disclose explicitly that the bundles may be wires.

On the other hand, Umeki discloses for the purpose of fastening efficiently armature coil to the shaft that wires 5a and 5b may be used/attached to the rotor part of an electrical machine (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design an electric motor armature as disclosed by Graham et al and to modify the invention by using wires in the rotor for the purpose of fastening efficiently armature coil to the shaft as disclosed by Umeki.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al and Umeki as applied to claims 1-4 above, and further in view of Hsu et al.

The combined electric motor discloses all of the elements above. However, the combined electric motor does not disclose having conducting parts with end portions.

On the other hand, Hsu et al discloses for the purpose of improving contact between the end rings and bar ends, conducting bars 16 having an end portion (see figure 4) which is connected to a circuit cap 18, which has a corresponding connecting pin mate (see figures 8b, 9b).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electric motor as disclosed above and to modify the invention by using corresponding pin mates for the rotor for the

purpose of improving contact between the end rings and bar ends as disclosed by Hsu et al.

6. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al and Umeki as applied to claim 1 above, and further in view of Adachi et al.

The combined electric motor discloses all of the elements above. However, the combined electric motor does not disclose having wire bundles establishing a non-contact relationship between the wires.

On the other hand, Adachi et al discloses for the purpose of providing a highly reliable connection for coils in electrical machines, wire bundles 54, 54 parallel to each other and spaced apart and establishing a non-contact relationship between the wires and being connected solely by a circuit cap 17 (see figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electric motor as disclosed above and to have the wires in a non-contact relationship for the purpose of providing a highly reliable connection for coils in electrical machines as disclosed by Adachi et al.

7. Claims 10-12 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al, Umeki and Adachi et al as applied to claims 8 and 13 above, and further in view of Kliman et al.

The combined electric motor discloses all of the elements above. However, the combined electric motor does not disclose that the bundles are encased within a groove of the rotor and that the wires have a greater length than the rotor.

On the other hand, Kliman et al discloses for the purpose of making motors with lower losses at lower costs, a rotor 10 having wires that are encased within a groove of the rotor 10 (see figure 7) and the wires 24 may have a greater length than the rotor (see figure 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electric motor as disclosed above and to have wires within a groove of the rotor for the purpose of making motors with lower losses at lower costs as disclosed by Kliman et al.

Response to Arguments

8. Applicant's arguments with respect to claims 8-15 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments filed 10/24/03 have been fully considered but they are not persuasive.

Claim 1 discloses a plurality of "wire bundles encased about the circumference" of a rotor casing. The claims disclose a "rotor casing" and such term was read in the broadest term and since Graham et al teaches an element 44 enclosing a shaft, such element is functioning as a rotor casing (see figure 8). Thus the prior reads on the claim limitation of the rotor casing. Moreover, Graham et al teaches that it is known to have coil (wires) as conductors in the plates 10 and 12 (figures 1a, 1b). Moreover, Umeki teaches directly that wires 102a, 102b are encased about the circumference of the rotor (see figure 2) and such wires are parallel to the axis of rotation of the shaft 1.

With respect to the wires being spaced from each other, Graham et al and Umeki et al disclose that wire connections are spaced from each other, but from the Applicant's remarks, it may be understood that by the wires being spaced from each other that the wires are not electrically connected to each other. Respectfully, the claims disclose only that the wires are "spaced" and that has been interpreted as meaning that the wires are physically spaced from each other. With respect to the argument that neither Umeki nor Graham show that the wires are straight, please notice in figure 1a, 1b of Graham et al and notice figures 2 and 4 of Umeki.

10. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

11. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Graham et al discloses an armature for an electric motor and Umeki

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discloses also an armature description for an electrical machine. Both reference are well in the same field of related arts.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is

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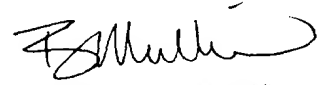
(703) 305-1563, which will be in effect until 02/02/04. The new phone number that will be in effect AFTER 02/02/04 will be (571) 272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

January 9, 2004


BURTON S. MULLINS
PRIMARY EXAMINER